1) Use your knowledge of multiples to help you solve these long division questions:

372 ÷ 17 =

856 ÷ 23 =

738 ÷ 32 =

647 ÷ 13 =

2) Solve these division word problems. Think carefully about the effect the remainder will have on your final answer.

a) A school hall can fit up to 18 children in each row. How many rows of children will there be when 364 children are sat down?

b) A class is raising money for the school by selling lemonade. Each cup costs 32p. How many cups could the headteacher buy for the staffroom with £9?

c) A teacher is buying pencils for the classroom. Pencils are sold in packs of 16. They need 490 pencils for the year. How many packs of pencils do they need to buy?
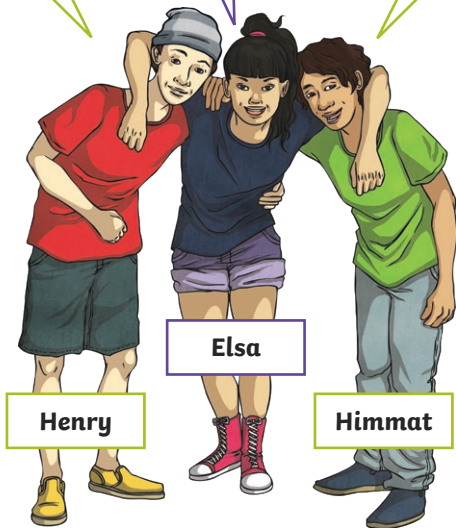
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1) Three children are making bottles of lemonade in order to raise money for the school. In total, they make 850ml of lemonade. They need to pour all their lemonade into bottles. Each bottle holds 65ml.

I think that we will be able to fill 12 bottles.

I think that we will be able to fill 13 bottles.

I think that we will have enough lemonade to fill 14 bottles.

Elsa

Henry

Himmat

Can you explain who is right?

2) Look at these division calculations and decide if the statements are true or false. Explain your reasoning.

495 ÷ 15 =

367 ÷ 15 =

855 ÷ 15 =

954 ÷ 15 =

Only two of these calculations will leave a remainder because the other two questions have dividends which are multiples of 15.

One of these calculations has a remainder which is odd.

Two of these calculations can also be divided by 45 without leaving a remainder.

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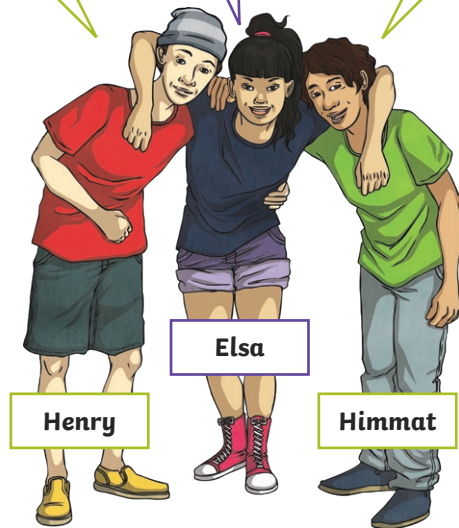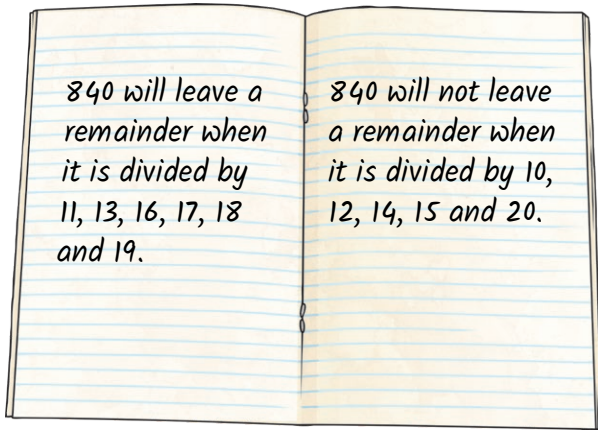
1) Investigate which numbers could match with each statement. Can you find every possible answer?

    a) This number is less than 300. If I divide this three-digit number by 15, my remainder is 3.

    b) This number is between 200 and 300. If I divide it by 19, the remainder is 2.

    c) I have a three-digit even number that is less than 350. When I divide it by 32, the remainder is 4.

2) 840 ÷ ? = ?

Oscar investigated dividing 840 by a two-digit number between 10 and 20 to try and find which divisors left no remainder. This is what he found:

> 840 will leave a remainder when it is divided by 11, 13, 16, 17, 18 and 19.
>
> 840 will not leave a remainder when it is divided by 10, 12, 14, 15 and 20.

Investigate by using a variety of different 3-digit numbers to find which divisors between 10 and 20 leave no remainder.
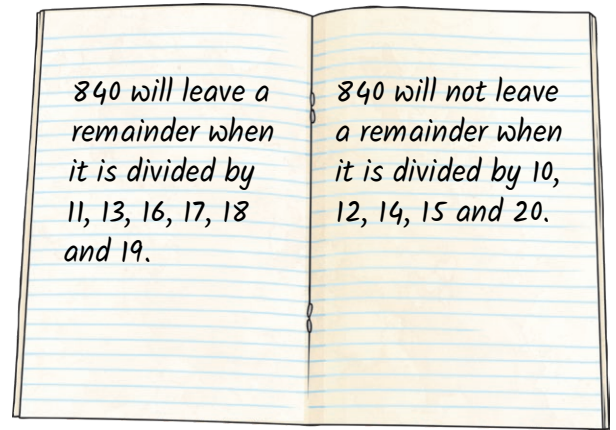
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